WHAT IS CLAIMED IS:

1. An engineered higher order repeat DNA comprising one or more CENP-B boxes, wherein said one or more CENP-B boxes are distributed on the engineered higher order repeat DNA in an order other than that of CENP-B boxes on a naturally-occurring higher order repeat DNA.

2. An engineered alphoid DNA comprising one or more CENP-B boxes, wherein said one or more CENP-B boxes are distributed on the alphoid DNA in an order other than that of CENP-B boxes on a naturally occurring alphoid DNA.

3. An engineered higher order repeat DNA enriched in CENP-B box sequences.

4. An engineered alphoid DNA enriched in CENP-B box sequences.

5. An engineered alphoid DNA comprising an engineered higher order repeat as claimed in claims 1 and 3.

6. An engineered chromosome vector containing the alphoid DNA of the claims 2, 4, or 5.

7. An engineered chromosome comprising the engineered higher order repeat DNA or the engineered alphoid DNA of any of the claims 1-5.

8. An engineered chromosome formed by introduction of the engineered chromosome vector of claim 6 into an appropriate cell.

9. The engineered chromosome vector of claim 6, wherein said vector when introduced into an appropriate cell forms an engineered chromosome at an efficiency rate greater than an engineered chromosome vector containing a higher order repeat DNA with a naturally-occurring frequency or distribution order of CENP-B boxes.

10. An engineered chromosome vector enriched in its number of CENP-B boxes, wherein said engineered chromosome vector forms an engineered chromosome upon introduction into an appropriate cell at an efficiency rate of greater than about 1-5%, about 5-15%, about 10-20%, or about 15-25% compared to a corresponding engineered chromosome vector which is not enriched in its number of CENP-B boxes.

11. An engineered chromosome enriched in its number of CENP-B boxes, wherein said engineered chromosome is mitotically stable inside an appropriate cell.

12. The engineered chromosome vector of claim 6, wherein said vector comprises a transposon.

13. The engineered chromosome of claim 11, wherein said engineered chromosome has a mitotic segregation pattern that is substantially 1:1.

14. A method of increasing efficiency of formation of an engineered chromosome containing alphoid DNA comprising adding one or more CENP-B boxes to the alphoid DNA used to form said engineered chromosome.

15. A method of making an alphoid DNA array comprising:

(a) constructing two or more engineered monomers of defined DNA sequences; wherein at least one monomer is enriched in CENP-B box sequences;

(b) assembling said engineered monomers to form said alphoid DNA array.

16. An engineered alphoid DNA array made by the process of claim15.

17. A method of making an engineered higher order repeat DNA comprising:

(a) constructing two or more engineered monomers of defined DNA sequences; wherein at least one monomer is enriched in CENP-B box sequences;

(b) directionally assembling said engineered monomers to form said higher order repeat DNA.

18. A higher order repeat DNA made by the method of claim 17.

19. A method of engineering a desired higher order repeat DNA comprising:

(a) engineering each monomer unit of said desired higher order repeat DNA as one or more oligonucleotide(s); wherein at least one monomer is enriched in CENP-B box sequences;

(b) directionally ligating pairs of adjacent monomer units to form repeating monomeric units to form the desired higher order repeat DNA.

20. A higher order repeat DNA made by the method of claim 19.

21. The engineered chromosome vector of claim 6, wherein said vector when introduced in an appropriate cell forms an engineered chromosome at an efficiency rate higher than an engineered chromosome vector containing higher order repeat DNA with fewer CENP-B boxes.